

REMARKS

Title of Application

Applicant noted during a review of the USPTO website that the title of the application is incorrect. The USPTO website states "Or a Turbine Blade" instead of the correct title "Of a Turbine Blade". Correction of this mistake and acknowledgement of same is respectfully requested.

Outstanding Office Action

The Office Action mailed January 7, 2009 has been carefully considered by Applicant. Reconsideration is respectfully requested in view of the foregoing claim amendments and the remarks that follow.

Claim Rejections under 35 U.S.C. §112

Claims 8 and 16 have been rejected for lack of antecedent basis. Claims 5 and 9 are currently amended to provide proper antecedent basis for claims 8 and 16. Withdrawal of the rejection under §112 is thus appropriate and requested.

Claim Rejections under 35 U.S.C. §102

Claims 5-16 have been rejected under 35 U.S.C. §102(b) as being anticipated by Bharadwaj et al. U.S. Patent No. 6,532,433.

Claim 5

Claim 5 is amended to further recite the steps of *monitoring blade pass frequency of the turbine blades* and *sensing fluctuations in said blade pass frequency to identify a developing condition of rotating stall*. The *developing condition of rotating stall* is factored into an *estimation of the operable life of a turbine blade in the compressor*, along with the *identified condition of rotating stall*. This amendment is supported in the application as-filed, page 5, lines 4-9.

The claimed combination of steps is not disclosed in the prior art, including Bharadwaj et al. '433. The Examiner is correct that Bharadwaj et al. '433 discloses estimation of the operable life of turbine blades in a compressor, wherein a condition of rotating stall can be a factor. When developed, rotating stall will cause unstable vibrations in the rotor leading to subsynchronous vibrations in the casing. However only the present inventor recognized that it is possible to provide an even better estimation of operable life of a turbine blade in the compressor by also monitoring blade pass frequency to detect an initial

onset of rotating stall and then factoring such a condition into the estimation calculation. This is not recognized or disclosed by Bharadwaj et al. '433. The advantages provided by such a method are also not recognized or disclosed.

Withdrawal of the rejection of claim 5 is thus appropriate and requested.

Claims 6 and 7

Claim 6 and 7 depend directly and indirectly from claim 5 and are thus allowable for the reasons stated above, as well as the subject matter recited therein.

Claim 9

Claim 9 is amended to indicate that the processor is also configured to identify a developing condition of rotating stall based upon fluctuations in the blade pass frequency of the turbine blades and to communicate the developing condition (along with an identified condition of rotating stall) to a lifetime estimation tool. This type of processor is not recognized or disclosed by Bharadwaj et al. '433, for the reasons stated above regarding claim 5. The advantages provided by such a processor are also not recognized or disclosed.

Withdrawal of the rejection of claim 9 is thus appropriate and requested.

Claims 10-15


Claims 10-15 depend directly or indirectly from claim 9 and are thus believed allowable for the reasons stated above, as well as the subject matter recited therein.

Conclusion

The present application is thus believed in condition for allowance. Such action is respectfully requested.

Respectfully submitted,

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